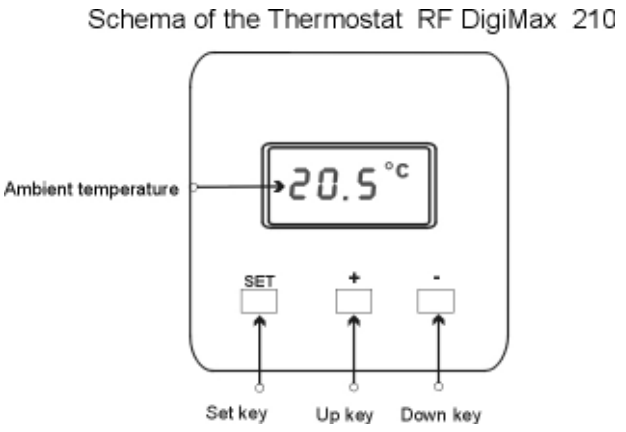
Digimax 210

Programmable Thermostat

User Guide

Schema of the thermostat



The RF DigiMax 210 thermostat does not need any extra wiring and works within 30 meters range around the receiver RF-Max. The DigiMax 210 is equiped of a secured RF code which the RF Max will learn during the installation process. This code will assure that the receiver will only answer to messages sent by your DigiMax 210. This process is described at the end of this manual.

I. To start :

Remove the battery insulation strip and check unit is functioning.

II. Operation :

The DigiMax 210 Digital Room thermostat is simple to use. The Liquid Crystal Display continuously shows ambient temperature.

To change the “Set Point” (i.e. temperature requested), press and hold the “SET” key and at the same time press “+” or “-” to select the temperature setting. The display will show the “Set Point” until the “SET” button is released. The display will then show the ambient temperature.
When the DigiMax 200 instructs your heating system to switch on, a small flame symbol appears at the bottom right of the display.

III. Installation :

DigiMax 210 Technical Data

Temperature Range :	5°C to 35°C in 1°C steps 16°C to 35°C selectable
Differential :	<1°C at 4K per Hour
Ambient temperature :	Operating 0°C to 45°C
Power Supply :	3 type AA 1.5 v alkaline cells
Switch :	230v ac 2 (1)A
Battery Life :	2 years Typical
Maintenance :	no user maintenance required
RF range :	30 meters

Please read all installation instructions before proceeding.

The RF DigiMax 210 works with batteries. It does not need any wire. If you wish it to replace an old cable thermostat, isolate and secure the old wires, which are useless now. Do not forget to cut the power when you take off the old thermostat.

IV Position

The ideal position to locate the DigiMax 210 Digital Room Thermostat is about 1.5m above floor level, accessible, free from extremes of temperature and draughts. Do not mount on an outside wall, above a radiator or where it may be subjected to direct sunlight.

The radio link does not mean that the wiring has been simplified, but that the thermostat can be installed in any place of your house to optimate your needs in heating.

We recommend you to make the installation with the receiver RF-Max before fixing your thermostat on the wall, in order to be certain of its good operation at the selected place.

V Fixing

1 The wall plate should be positionned with a minimum of 70 mm clearance all round to allow adequate air flow

2 Fix the wall-plate directly to a flat wall

3 Remove the battery insulation strip and check unit is functioning, place it on its wall-plate

VI Configuring

The unit is supplied with a 5°C minimum temperature set point and configured as a heating thermostat as factory defaults. Two internal links can be used to reconfigure these defaults.

1 Open the unit by slackening the retaining screw situated in the bottom edge and hinging carefully upwards. Disengage the unit from the wall-plate and place it to one side for safe keeping.

2 Locate and identify the two option Links 1 and 2. Use a pair of small wire cutters to cut the appropriate links to give the required configuration.

3 Cutting Link 1 will give a minimum temperature set point of 16°C (factory default is 5°C). Cut link 2 to display cooling symbol instead of heating symbol.

4 Replace batteries being sure to observe the correct polarities. Re-fit to plastic base and tighten retaining screw. Check unit is functioning as required.

VII Battery replacement

A “flashing” battery low symbol will appear at the bottom left of the display when the batteries start to approach the end of their life. This indicates that they should be replaced within the next month. Ultimately, the display will start flashing and the thermostat will shut down until the batteries are replaced.

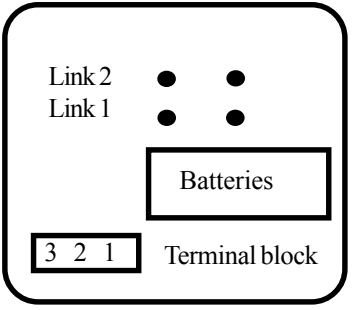
To replace the batteries, the following procedure should be carried out. The thermostat should be isolated from the mains before proceeding.

1 Slacken the retaining screw on the unit and open by hinging upwards the top edge.

2 Remove batteries and fit two new “AA” alkaline cells taking care to observe the correct battery polarities. Check unit is functioning

3 Re-fit it to the plastic base and check that the RF link still operates. This can be easily done by adjusting the requested temperature under or over the level of the ambient temperature, in order to activate and disactivate several times the boiler while watching the green LED on the RF-Max receiver.

RF DigiMax 210 Rear View



Cut **Link 1** for 16°C minimum set point
Cut **Link 2** to display cooling symbol
instead of heating symbol

RF link between the Thermostat RF DigiMax 210 and the RF-Max

a) Commissioning

The RF DigiMax 210 is required to be matched with the RF-Max receiver. This is to ensure only the correct thermostat is controlling your ambient temperature. The thermostat sends a signal which is a unique code (1 of 65000), which only the matched RF-Max receiver is capable of understanding. From this moment, the RF-Max will only answer to signals sent by this thermostat

RF Receiver Led's (indicators) :

Red Led :

'flashing' : indicates receiving an RF signal

'steady on' : indicates a fault condition e.g. RF signal not being received

'slowly plusing' : indicates a valid install code has been received

Green Led :

'steady on' : - indicates demand for heat

'off' : - no demand for heat i.e. heating call satisfied

b) Checking the hard wired circuit :

1. Rely the RF-Max receiver to the mains. Check that no thermostat in the heating network request warm. The red LED should be off.

2. Press the Test button. The Green Led should come on. Check that the boiler and/or motorised valve have been operated. Remember to allow adequate time for the valve to open. Press Test button again. The green led should go out closing any valve and switching off the boiler.

Nota : the thermostat automatically leaves the test mode after 15 minutes.

c) Checking the RF circuit

1. To install thermostat with the RF receiver press and hold the OK and COPY keys together in Auto mode for 3 seconds. The DigiMax 210 will then transmit its unique digital code every 10 seconds for the next 5 minutes. The display will show flash ']]]' while this is happening.

2. Within the 5 minute install period go to the RF-Max Receiver. Press and hold the Install button and then press the Test button while the Install button is held. This will clear out any previously installed codes. The Red Led will pulse slowly for 3 seconds to indicate this has been done.

3. Next, place the Receiver in Install mode by pressing and holding the Install button (for at least 10 seconds). The Red LED will come on and stay on until a valid Install Code has been received. When this happens the Red LED will start pulsing slowly and the install button can then be released. The Red LED will pulse for a further 5 seconds and then go off. The Install code has been successfully received.

4. Go to the Thermostat Transmitter and press any key to stop the transmission. The display will stop flashing ']]]' and return to normal.

5. The R-Max Receiver will now only respond to radio signals with the installed code i.e. from the DigiMax 210 Thermostat just installed. Even if the power is removed from the Receiver it will not forget the installed code.

6. Check that the DigiMax 210 and the RF-Max are communicating with each other by adjusting the Digimax 210 Thermostat set point above or below the actual temperature thus generating a radio signal. This will happen every time the DigiMax 210 Thermostat calls for heating / cooling to be switched on or off.

7. The DigiMax 210 Thermostat also sends a radio signal every 5 minutes to make sure that the RF-Max Receiver knows what state it should be in. Therefore every 5 min-

utes the Red LED will flash for 3 seconds. If the RF-Max does not receive regular RF signals the Red LED will come full on indicating that a fault condition has occured and the heating system will be switched off.

Note : If more than one "Thermostat RF- RF Receiver" is installed with the same caracteristics, it is important to apply the above process for each thermostat, in order to be sure that each thermostat is connected to the right receiver.

c) Trouble shooting

1. Red LED stays full on :

   This may indicate that the batteries need to be replaced or that there is an interference with another radio signal.

2. Installation :

   If nothing happens after 20 continuous seconds of pressing of the Install button of the receiver, check that the thermostat transmits its radio signal (the symbol]]] flashes on the display of the thermostat)

3. Minimum temperature level :

   If while adjusting the set point it is found that it cannot be set below 16°C check with the installer that the unit has not been configured to restrict the minimum set point (this often required for installations in sheltered accomodation). See 'Configuring' in the installation guide of how to re-configure the unit.

4. Trouble shooting

If the heater does not operate when the thermostat is asking for warm, check the battery indicator and changes the battery units if necessaru. If the indicator has vanished, remplace the piles for you have probably missed the signal indicating weak battery. If the batteries are taken out during more than 5 - 10 minutes, it maight be necessary to make again the installation with the RF-Max receiver

Extending the SC9000 security console with a Digimax 210 thermostat.

The HF DigiMax 210 thermostat does not require extra wiring and has a radius of 30 m. The appliance is equipped with a protected HF code. This code is registered with the SC9000 during installation. This code ensures that the SC9000 will only respond to messages sent by your DigiMax 210. You can register up to 4 DigiMax 210 thermostats with the SC9000. Depending on the information sent out by the thermostat, the SC9000 Marmitek X10 transmits ON and OFF signals via the mains, to switch the Marmitek X10 modules connected to your boiler on or off. You can set a “differential temperature” in the SC9000, which lies between 1 and 9 degrees. If the SC9000 is set to "Disarm" or "Arm Home", the X10 module connected to your boiler will be switched on or off, depending on the comfort temperature set. If the SC9000 is set to "Arm Away", the “differential temperature” setting will come in effect. Example: the room temperature is 15 °C, the comfort temperature set is 20 °C, with a "differential temperature" of 4 °C -> 20 °C – 4 °C = 16 °C: this means the appliance will transmit a “turn on” command, until the temperature has reached 16 °C.

Registering a thermostat

1. To access the menu, press the menu ↑ or menu ↓ button. The display will now read [ENTER PIN]
2. Enter your 4-digit PIN code (factory setting 0000.). For every digit, an asterisk (*) will appear on the display.
3. If the PIN code has been entered correctly, the word INSTALL will appear on the display.
4. Press OK.
5. To register the thermostat with the console, keep both the + and – button of the thermostat pressed in for 3 seconds. The DigiMax 210 will transmit the unique digital code every 10 seconds, during a period of 5 minutes. The display will flash and show the symbols “[[[“. The console will beep to confirm. The display will read "STAT 1 OK".

Remove a registered thermostat

If you are using multiple thermostats, you can only remove all thermostats. Then you have to re-register the thermostats you want to use.
1. To access the menu, press the menu ↑ or menu ↓ button. The display will now read [ENTER PIN]
2. Enter your 4-digit PIN code (factory setting 0000.). For every digit, an asterisk (*) will appear on the display.
3. If the PIN code has been entered correctly, the word INSTALL will appear on the display.
4. Press OK.
5. Use the buttons menu ↑/↓ to scroll to menu item 6: [MEMORY CLEAR] Press OK to select this item. You can also go directly to item 6 by pressing the 6 on the keyboard.
6. Use the buttons menu ↑/↓ to scroll to menu item [CLEAR ALL THERMOSTATS] Press OK to select this menu item.
7. The display will now read [CONFIRM CLR 1. YES 2. NO] Press 1 to confirm and erase the thermostats. The thermostats have now been unregistered.

How does the console work with the Digimax 210?

The SC9000 transmits a X10 message on the unit code corresponding to the zone number of the console and the house code of the console +3. In the factory setting, the house code of the console is set to A:
- thermostat in zone 1 will generate X10 messages on code B3,
- thermostat in zone 2 will generate X10 messages on code B4,
- thermostat in zone 3 will generate X10 messages on code B5,
- thermostat in zone 4 will generate X10 messages on code B6.

Example: You have set the house code for the console to B,
- thermostat in zone 1 will generate X10 messages on code C3,
- thermostat in zone 2 will generate X10 messages on code C4,
- thermostat in zone 3 will generate X10 messages on code C5,
- thermostat in zone 4 will generate X10 messages on code C6.

Extending the SC9000 security console with a Digimax 210 thermostat.

If the console has not received any more messages from the thermostat, the LCD display will read [PROBLEM ZONE X]

Programming the "differential temperature" on the console

The thermostat needs to be registered with the SC9000 to be able to view the Setback settings in the OPTIONS menu (7).

1. To access the menu, press the menu ↑ or menu ↓ button. The display will now read [ENTER PIN]
2. Enter your 4-digit PIN code (factory setting 0000.). For every digit, an asterisk (*) will appear on the display.
3. If the PIN code has been entered correctly, the word INSTALL will appear on the display.
4. Press OK.
5. Use the buttons menu ↑/↓ to scroll to menu item 7: [OPTIONS] Press OK to select this item. You can also go directly to this item by pressing the 7 on the keyboard.
6. Use the buttons menu ↑/↓ to scroll to menu item SETBACK. Press OK to select this menu item.
7. The display will now read SETBACK x DEG C. Enter the differential temperature. This can be set from 01 to 09 degrees. Press OK. The display will now read the new differential temperature.

Activating the "differential temperature" remotely

If the security console SC9000 is in "Arm Away" mode, you can use your phone to choose to activate the temperature or not:

Make sure the dial-in function is activated (menu [OPTIONS/ANSWER TYPE])
1. Ring the security console from a land line or mobile phone.
2. The security console will respond to your call with "Please enter pin".
3. Enter your PIN code via the buttons on your phone (standard setting is 0000).
4. The security console will respond to a correctly entered PIN code with "PIN accepted" (when entering an incorrect PIN code you will hear "ERROR").
5. Press "88#" on your phone to activate the differential temperature. You will hear "Thermostat set back" as a confirmation.
6. The "differential temperature" is now activated (the differential temperature is deducted from the comfort setting).

To deactivate the "differential temperature"

Make sure the dial-in function is activated (menu [OPTIONS/ANSWER TYPE]).
1. Ring the security console from a land line or mobile phone.
2. The security console will respond to your call with "Please enter pin".
3. Enter your PIN code via the buttons on your phone (standard setting is 0000).
4. The security console will respond to a correctly entered PIN code with "PIN accepted" (when entering an incorrect PIN code you will hear "ERROR").
5. Press "88*" on your phone to deactivate the differential temperature. You will hear "Thermostat normal" as a confirmation.
6. The "differential temperature" is now deactivated (the differential temperature is no longer deducted from the comfort setting).